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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/756,738 | 01/10/2001 | Sam Shiaw-Shiang Jiang | ASTP0007USA | 6828 |

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(NAIPC) NORTH AMERICA INTERNATIONAL PATENT OFFICE
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MERRIFIELD, VA 22116

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| EXAMINER |
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MACE, BRAD THOMAS

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| ART UNIT | PAPER NUMBER |
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2663

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/756,738 | JIANG ET AL. | |
| | Examiner | Art Unit | |
| | Brad T. Mace | 2663 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9 and 11-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-8 and 12-18 is/are rejected.
- 7) ☒ Claim(s) 2,4,9 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 5, 15, 16 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,496,481 (Wu et al.).

Regarding claims 1, 5, 15, 16:

Wu discloses a method for acknowledging a wireless data discarding request transmitted by a first station to a second station for requesting the second station to discard at least a layer 2 service data unit (SDU), the method comprising:

generating a layer 2 data discard acknowledgement protocol data unit (PDU) (col. 7, lines 6-23, where an ack packet is sent to the transmitter in response to corrupted data packets in the receiving buffer (hence are discarded)), the layer 2 data discard acknowledgement PDU comprising a first field that ensures the first station to determine the number of layer 2 SDUs discarded by the second station (Figure 3(b), and col. 8, lines 47-53, where a bitmap field has n or more bits representing the status of each received packet in the GOP (hence indicates the number discarded)); and

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transmitting the layer 2 data discard acknowledgement PDU to the first station (col. 7, lines 11-13).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,496,481 (Wu et al.) in view of the admitted prior art.

Regarding claim 6:

Wu discloses substantially all the claimed invention as specified above, however, does not disclose expressly wherein the layer 2 data discard acknowledgement PDU further comprises a second field for indicating a starting sequence number for an updated receiving window of the second station, and a third field for indicating discarding of layer 2 SDU data within a PDU having the starting sequence number.

The admitted prior art discloses wherein the layer 2 data discard acknowledgement PDU further comprises a second field for indicating a starting sequence number for an updated receiving window of the second station, and a third field for indicating discarding of layer 2 SDU data within a PDU having the starting sequence number (pg. 10, lines 1-17).

A person of ordinary skill in the art would have been motivated to employ the admitted prior art in Wu in order to obtain a second field for indicating a starting

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sequence number for an updated receiving window of the second station, and a third field for indicating discarding of layer 2 SDU data within a PDU having the starting sequence number. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine the admitted prior art in Wu (collectively Wu-admitted prior art) to obtain the invention as specified in claims 1, 6. The suggestion/motivation to do so would have been to allow the first station to assume that the second station has discarded particular SDU's (pg. 10, lines 14-17).

Regarding claim 7:

Wu discloses substantially all the claimed invention as specified above, however, does not disclose expressly the first station comprises a layer 2 interface and a layer 3 interface, and the first field in the layer 2 acknowledgement PDU enables the layer 2 interface to inform the layer 3 interface of the number of layer 2 SDUs discarded by the second station.

The admitted prior art teaches that the first station comprises a layer 2 interface and a layer 3 interface (see Figure 1, references 16 and 19), and the first field in the layer 2 acknowledgement PDU enables the layer 2 interface to inform the layer 3 interface of the number of layer 2 SDUs discarded by the second station (any field in the data discard acknowledgement PDU helps to enable the first station to determine the layer 2 SDUs discarded and thus enables the layer 2 interface to inform the layer 3 interface of the number of layer 2 SDUs discarded by the second station; lines 12-17 of pg. 7).

A person of ordinary skill in the art would have been motivated to employ the admitted prior art in Wu in order to obtain a layer 2 interface and a layer 3 interface where the first field in the layer 2 acknowledgement PDU enables the layer 2 interface to inform the layer 3 interface of the number of layer 2 SDUs discarded by the second station. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine the admitted prior art in Wu (collectively Wu-admitted prior art) to obtain the invention as specified in claims 1, 7. The suggestion/motivation to do so would have been to have the layer 3 interfaces of the first and second stations to be properly informed of discarded SDUs, where the discarded SDU's should be the same for both stations (pg. 7, lines 17-20).

5. Claims 8, 12, 13, 14, 17, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of U.S. Patent No. 6,496,481 (Wu et al.).

Regarding claim 8, 12, 17, 18:

The admitted prior art discloses a first station capable of transmitting a data discarding request, the data discarding request being used to request discarding of at least a layer 2 service data unit (SDU) (pg. 7, lines 7-9); and

a second station capable of receiving the data discarding request and sending a layer 2 data discard acknowledgement protocol data unit (PDU) (pg. 7, lines 12-15).

However, the admitted prior art does not disclose expressly the layer 2 data discard acknowledgment PDU comprising a first field that ensures the first station to determine the number of layer 2 SDUs discarded by the second station.

Wu discloses generating a layer 2 data discard acknowledgement protocol data unit (PDU) (col. 7, lines 6-23, where an ack packet is sent to the transmitter in response to corrupted data packets in the receiving buffer (hence are discarded)), the layer 2 data discard acknowledgement PDU comprising a first field that ensures the first station to determine the number of layer 2 SDUs discarded by the second station (Figure 3(b), and col. 8, lines 47-53, where a bitmap field has n or more bits representing the status of each received packet in the GOP (hence indicates the number discarded)); and transmitting the layer 2 data discard acknowledgement PDU to the first station (col. 7, lines 11-13).

A person of ordinary skill in the art would have been motivated to employ Wu with the admitted prior art in order to obtain the layer 2 data discard acknowledgment PDU comprising a first field that ensures the first station to determine the number of layer 2 SDUs discarded by the second station. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Wu in the admitted prior art (collectively admitted prior art-Wu) in order to obtain the invention as specified in claim 8. The suggestion/motivation to do so would have been to inform the transmitter of the corrupted (discarded) packets (col. 7, lines 6-13).

Regarding claim 13:

The admitted prior art further discloses wherein the layer 2 data discard acknowledgement PDU further comprises a second field for indicating a starting sequence number for an updated receiving window of the second station, and a third

field for indicating discarding of layer 2 SDU data within a PDU having the starting sequence number (pg. 10, lines 1-17).

Regarding claim 14:

The admitted prior art further discloses that the first station comprises a layer 2 interface and a layer 3 interface (see Figure 1, references 16 and 19), and the first field in the layer 2 acknowledgement PDU enables the layer 2 interface to inform the layer 3 interface of the number of layer 2 SDUs discarded by the second station (any field in the data discard acknowledgement PDU helps to enable the first station to determine the layer 2 SDUs discarded and thus enables the layer 2 interface to inform the layer 3 interface of the number of layer 2 SDUs discarded by the second station; lines 12-17 of pg. 7).

Allowable Subject Matter

6. Claims 2, 4, 9, 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments with respect to claims 1-2, 4-9, and 11-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brad T. Mace whose telephone number is (571) 272-3128. The examiner can normally be reached on Monday -Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

btm

Brad T. Mace
Examiner
Art Unit 2663

btm
January 19, 2005



**CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**